

REMARKS

The Examiner has required an election under 35 U.S.C. § 121 of one of the following inventions:

- I. Claims 1-14, drawn to a method of detecting dimers, classified in class 435, subclass 7.2.
- II. Claims 15-18, drawn to a method of detecting oligomerization, classified in class 436, subclass 518.
- III. Claims 19-30, drawn to a method of detection of a dimer, wherein molecular tags of different binding compounds has different separation such that distinct peaks are formed in a separation profile, classified in class 435, subclass 7.8.

The Examiner contends that the restriction is proper because (1) the methods of Groups I-III are unrelated, requiring different modes of operation; and (2) the methods of Groups I-III have acquired a separate status in the art. Applicants respectfully traverse the Restriction Requirement and respectfully assert that the restriction of Groups I-III is improper under 35 U.S.C. § 121.

I. The Legal Standard

A restriction requirement is proper only when (1) the inventions are independent or distinct as claimed; and (2) there is a serious burden on the Examiner to search and examine those claims. M.P.E.P. § 803. Specifically, the M.P.E.P. § 803 states:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions. (emphasis added)

II. Groups I-III Should be Examined Together

Applicants respectfully request that Groups I-III be examined together because Groups I-III are related inventions and it would not be a serious burden on the Examiner to examine them together.

A. Groups I-III are Related Inventions

Applicants submit that Groups I-III are related inventions, because they have similar modes of operation, sharing similar objectives, methods steps, reagents and criteria for success.

The claims of Groups I-III share similar objectives, *i.e.*, detecting and/or measuring oligomers of membrane-bound molecules. For example, both Group I and Group III relate to methods of detecting and/or measuring dimers of membrane-bound molecules. Group I relates to methods of detecting dimers of membrane-associated analytes in a cell membrane. Group III relates to methods of detecting a dimer comprising a first receptor type and a second receptor type in a biological sample. The term “sample” is defined in the specification to mean “a quantity of material that is suspected of containing membrane-associated analyte that are to be detected or measured.” *See*, the specification, page 8, lines 21-25. Thus, like Group I, Group III relates to methods of detecting a dimer of membrane-bound molecules.

Further, the claims of Group I and Group III share similar objectives with the claims of Group II. Group II relates to methods of detecting oligomerization of a plurality of receptor types in a cell membrane. Oligomers encompasses dimers; membrane-bound molecules encompasses receptors. Therefore, detecting oligomers of membrane-bound molecules encompasses detecting both oligomers of a plurality of receptor types and dimers of membrane-bound molecules. Accordingly, Groups I, II and III all relate to methods that share similar objectives, that is, detecting and/or measuring oligomers of membrane-bound molecules.

In addition, Groups I-III share similar reagents. For instance, the methods of Groups I-III all comprise, *inter alia*, use of two reagents: a binding compound and a cleaving probe. Specifically, the binding compound has one or more molecular tags each attached thereto by a cleavable linkage and the one or more molecular tags each having a separation characteristic. The cleaving probe has a cleavage-inducing moiety, which can be induced to cleave the cleavable linkage within an effective proximity.

In addition to the binding compound and cleaving probe, Groups I-III also share similar method steps and criteria for success. In accordance with the methods of Groups I-III, the binding compound and the cleaving probe are mixed with their target membrane-bound molecules such that the binding compound and the cleaving probe specifically bind to their respective target membrane-bound molecules. Binding of the binding compound and the cleaving probe to its target membrane-bound molecules that have formed an oligomeric complex results in release of the molecular tag from the binding compound. The molecular tags are then separated and quantified to provide a measure of oligomerization.

Taken together, because Groups I-III share similar objectives, reagents, methods steps and criteria for success, Groups I-III have similar modes of operation. Therefore, Applicants respectfully submit that Groups I-III are related inventions.

B. It Would not be a Serious Burden on the Examiner to Examine Groups I-III

Furthermore, Applicants respectfully submit that even assuming, *arguendo*, that Groups I-III represent distinct or independent inventions, to search and examine the subject matter of Groups I-III together would not be a serious burden on the Examiner. It would not be a serious burden on the Examiner to search and examine Groups I and Group III together because Groups I-III should be classified in the same class and subclass and a single search would be required to examine Groups I-III.

Applicants respectfully submit that Group III should be classified in class 435, subclass 7.2, the same subclass as Group I. Group III should not be classified in class 435, subclass 7.8, entitled “Involving Nonmembrane Bound Receptor Binding or Protein Binding other than Antigen-Antibody Binding.” Class 435, subclass 7.8 relates to nonmembrane bound receptors. As discussed in Section A, Group III relates to membrane bound receptors. Accordingly, Applicants respectfully submit that Group III is properly classified in class 435, subclass 7.2, entitled “Involving a Microorganism, or Cell Membrane Bound Antigen or Cell Membrane Bound Receptor or Cell Membrane Bound Antibody or Microbial Lysate.”

Moreover, Applicants respectfully submit that Group II should also be classified in class 435, subclass 7.2, the same subclass as Group I. Group II recites methods of detecting oligomerization of a plurality of receptors types in a cell membrane. Similar to the methods recited in Group I, the methods of Group II also comprise, *inter alia*, use of a binding compound and a cleaving probe, and determining the presence or absence or the amount of oligomerization in cell membrane by identifying released molecular tags. Compared with Group I, Group II does not recite any additional element relating to an “insoluble carrier for immobilizing immunochemicals,” which is the subject matter of class 436, subclass 518. Accordingly, Applicants respectfully submit that Group II should not be classified in class 436, subclass 518. Like Group I, Group II should be classified in class 435, subclass 7.2, which relates to membrane-bound receptors.

In view of the foregoing, Applicants respectfully submit that Groups I-III should be classified in the same class and subclass, *i.e.*, class 435, subclass 7.2. In addition, Applicants respectfully submit that the subject matter of Groups I-III is related and has not

acquired a separate status in the art. Therefore, the subject matter of Group II or III would necessarily be searched and examined in the search and examination of the subject matter of the elected Group I. Accordingly, the search and examination of Groups I-III together would not be a serious burden on the Examiner.

Accordingly, Applicants respectfully request reconsideration of the restriction requirement, and that Group I, Group II and Group III be examined together.

C. Applicants Elect to Prosecute the Claims of Group I with Traverse

However, in order to be fully responsive to the restriction requirement, Applicants hereby elect, with traverse to prosecute the claims of Group I, claims 1-14, drawn to a method of detecting dimers, classified in class 435, subclass 7.2.

Applicants reserve the right to pursue non-elected subject matter in one or more later filed divisional, continuation, or continuation-in-part applications.

Attorneys for Applicants retain the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

CONCLUSION

Applicants respectfully request the above remarks be entered and made of record in the file history.

No fees, other than the fee for extension of time, are believe to be due with this response. However, pursuant to 37 C.F.R. §1.136 (a)(3), the Commissioner is authorized to charge all required fees, or credit any overpayment, to Jones Day Deposit Account No. 50-3013 (101962-600001).

Date: **April 7, 2005**

Respectfully submitted,



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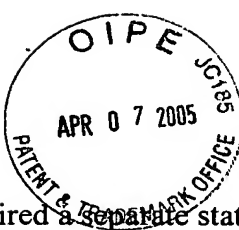
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acquired a separate status in the art. Therefore, the subject matter of Group II or III would necessarily be searched and examined in the search and examination of the subject matter of the elected Group I. Accordingly, the search and examination of Groups I-III together would not be a serious burden on the Examiner.

Accordingly, Applicants respectfully request reconsideration of the restriction requirement, and that Group I, Group II and Group III be examined together.

C. Applicants Elect to Prosecute the Claims of Group I with Traverse

However, in order to be fully responsive to the restriction requirement, Applicants hereby elect, with traverse to prosecute the claims of Group I, claims 1-14, drawn to a method of detecting dimers, classified in class 435, subclass 7.2.

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